【Article】

Spelling-Out Multiple Case Values: Evidence from English and Icelandic*

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1. Introduction

The aim of this paper is to establish a system of multiple Case valuation via Agree within phase theory (cf. Chomsky 2008, 2013, 2015). Contrary to the prevailing view that a nominal cannot receive more than one Case, I wish to argue that this is possible in the computational system of human language (C_{HL}) through investigations into (proper) improper movement phenomena in English and Icelandic, namely *tough*-movement. I will argue that movement from a Case position into another Case position should be allowed and that Case values can be stacked in the course of a derivation. I will also claim that the stacked Case values will be spelled out differently from language to language. In English the *last* Case value received will be realized morphologically, while in Icelandic the *first* Case value received will be realized (i.e., retained) morphologically (cf. Bejar and Massam 1990, Svenonius 2005, Narita 2007).

This paper is organized as follows. Section 2 outlines some theoretical assumptions and establishes a system of multiple Case valuation via Agree within phase theory. Section 3 discusses the syntax of *tough*-movement in English. Section 4 deals with the syntax of *tough*-movement in Icelandic. Section 5

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deals with some architectural issues arising from the proposed mechanism of multiple Case valuation via Agree and explores some implications for the system of grammar. Section 6 concludes the paper.

2. Theoretical Background and Multiple Case Valuation via Agree

2.1. Free Applications of Merge

Minimalist syntax assumes that Merge, which subsumes traditional phrase structure rules (PSRs) and transformations, is the fundamental structure-building operation in human language. Merge is defined as a set-formation operation that takes two syntactic objects SOs, α and β, and forms a new SO, as shown in (1).

(1) Merge (α, β) → {α, β}

Merge is assumed to be the computationally simplest operation. Chomsky (2004) assumes that Merge has two modes of application, namely External Merge (EM) and Internal Merge (IM). EM takes two SOs that are distinct from each other, while IM takes two SOs that are not distinct from each other, i.e., one is part of the other. IM ({α, β} → {β, {α, β}}) creates two occurrences (copies) of β in the structure (i.e., the copy theory of movement). This is due to the No Tampering Condition, which states that Merge cannot break up α or β.

(2) ***No Tampering Condition (NTC):***
Merge of X and Y leaves the two SOs unchanged. (Chomsky 2008: 138)

Given this condition, there is no need to stipulate a rule of formation of copies. In other words, the copy theory of movement naturally follows from "just IM applying in the optimal way, satisfying NTC" (cf. Chomsky 2007).

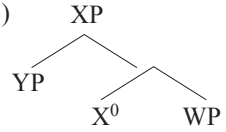
In recent minimalist theory, however, EM and IM have been reanalyzed as instantiations of the *single* operation Merge (cf. Chomsky 2013, 2015, Epstein,

Kitahara, and Seely 2014). The single operation Merge is the same in both cases, the only difference being that one of α, β is part of the other in one case (IM), while α and β are distinct in the other (EM). Furthermore, it is assumed that Merge, in its simplest form, applies freely (cf. Chomsky 2013, 2015). That is, Merge applies with no such trigger as EPP or the edge feature. As Epstein, Kitahara, and Seely (2014) point out, Merge is not "purposeful" in the sense of early minimalism in that it is no longer driven by convergent conditions (i.e., the valuation of ϕ-features or Case features). Merge is now free to apply, or not apply with only certain choices converging (cf. Chomsky 2015). If Merge applies freely, and if EM and IM are instantiations of the *single* operation Merge, then both EM and IM should apply freely. In this paper, I adopt this free Merge hypothesis.

2.2. Phases and Multiple Transfer

Chomsky (2000, 2001, 2007, 2008, 2013, 2015) maintains that the syntactic derivation proceeds "by phase." That is, syntactic structures are built in a bottom-up fashion. According to Chomsky, phases are *v*P and CP, which are both propositional in nature. *v*P is propositional in that all theta-roles are discharged and CP is propositional in that it is a full clause involving tense and force. In the context of phases, Chomsky distinguishes between the phase complement, the phase head, and the phrase edge.

(3)



In (3), WP is the phase complement, X^0 is the phase head, and YP is the phase edge. With these distinctions in mind, Chomsky (2000) proposes the following condition.

(4) ***Phase Impenetrability Condition (PIC):***

In phase α with head H, the domain of H [i.e., the complement of the phase

head] is not accessible to operations outside α, only H and its edge are accessible to such operations. (Chomsky 2000: 108)

PIC states that once a phase has been completed, the complement of the phase head (i.e., WP) becomes inaccessible to any further syntactic operations. This periodic "forgetting" of derivational information is known as multiple Transfer. It yields a strict form of cyclicity. PIC also states that although the transferred syntactic material becomes inaccessible to any further syntactic operations, the phase head (i.e., *v* and C) and its edge are accessible to such operations. Therefore, the syntactic material inside the PIC domain can bypass the effects of PIC by moving to the edge of a phase before/at Transfer. In other words, the phase edge acts as an escape hatch for syntactic material that would otherwise not be able to escape Transfer.

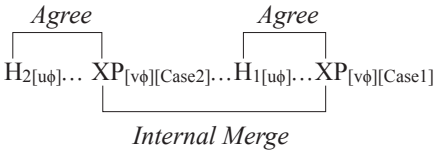
2.3. The Mechanics of Multiple Case Valuation via Agree

The prevailing view on Case valuation in minimalist theory is the one put forth by Chomsky (2001), according to which the unvalued Case feature of a nominal is valued by means of Agree. Since Chomsky (2001), it has been widely assumed that Case is an unvalued feature on a nominal that must be valued via Agree with some appropriate functional head (T for nominative, *v* for accusative, etc.). Here I specifically assume that unvalued features are features that *lack value* (cf. Chomsky 2000). In order to value the unvalued Case feature, the functional head has to establish an agreement relation with the bearer of the Case feature. It has also been widely assumed that once an agreement relation is established between the functional head and the bearer of the Case feature, the latter is *inactivated* and further access to it is bared by the Inactivity Condition (cf. Chomsky 2000, 2001).

Bruening (2001) and Narita (2007), however, put forth the hypothesis that Agree *only values* the unvalued Case feature of a nominal and the inactivation of it is done by Transfer at each phase in a cyclic manner. In this system, Agree *only values* the unvalued Case feature of a nominal and the inactivation of it is suspended till the point when the Case feature undergoes Transfer. This implies

that there is a timing dichotomy between Case valuation (i.e., Agree) and inactivation (i.e., Transfer). As Bruening (2001) suggests, this timing dichotomy between Case valuation and inactivation paves the way for multiple Case valuation. That is, as long as the Case feature is not affected by Transfer, it remains active and retains the ability to receive another Case value via further Agree. Following this line of reasoning, I argue that even after a nominal has received a Case value via Agree, nothing would prevent it from undergoing (free) IM into the edge of a phase before/at Transfer.[1] If it undergoes (free) IM into the edge of a phase, escaping Transfer, it remains active and retains the ability to receive another Case value via further Agree. The stacked Case values will be realized differently from language to language. The mechanics of multiple Case valuation via Agree that I propose is schematically shown below.[2,3]

Multiple Case Valuation via Agree

(5) 

H_1 agrees with XP and the Case feature of XP is valued. XP undergoes (free) IM into the edge of a phase before/at Transfer. This enables XP to remain active. Then, H_2 agrees with XP and the Case feature of XP is *revalued*. This is the basics of multiple Case valuation via Agree.

We have evidence for multiple Case valuation. Bejar and Massam (1999) present data from languages such as Hungarian and Niuean, where the DP undergoes multiple Case valuation. Consider the following Hungarian example.[4,5]

(6) **kiket**$_i$ mondtad hogy szeretnél ha eljönnének t_i
who-ACC you-said that you-would-like if came (3pl)
*'Who did you say that you would like it if they came?'
(Bejar and Massam 1999: 66; cited from Kiss 1985)

In (6), the *wh*-word *kiket* originates in the subject position of the finite *if*-clause, where it receives nominative Case. On the way to the final landing site, it receives accusative Case from the intermediate verb *said* (cf. Obata and Epstein 2011). Morphologically, it realizes the *last* Case value received in the course of the derivation (i.e., accusative Case).

Consider next the following Niuean data.

(7) a. Manako a ia ke momohe **[e na tama]**
want ABS he SUBJ sleep **ABS pair child**
'He wants the two children to sleep.'

b. Manako a ia **[ke he na tama]$_i$** ke momohe **t$_i$**
want ABS he **MIDDLE pair child** Subjnct sleep
'He wants the two children to sleep.'

(Bejar and Massam 1999: 67; Seiter 1980)

In (7a), the DP *na tama* originates in the subject position of the embedded clause, where it receives absolutive Case. In (7b), the DP raises to a higher position, where it receives middle Case. Again, morphologically, it realizes the *last* Case value received in the course of the derivation (i.e., middle Case).

Furthermore, as Alexiadou et al. (2010) observe, Greek also seems to provide evidence for multiple Case valuation, as shown below.

(8) I Maria ekane **ton Jani$_i$** na t$_i$ klapsi orgismenos
the Mary made **the John-ACC** SUBJ cries-3S angry-NOM
'Mary made John cry angry.' (Alexiadou et al. 2010: 110; boldface mine)

In (8), *ton Jani* originates in the lower clause, where it receives nominative Case (as shown by the licensing of the nominative modifier). Then, it undergoes raising to the matrix object position and receives accusative Case. Again, morphologically, it realizes the *last* Case value received in the course of the derivation (i.e., accusative Case). According to Alexiadou et al. (2010), the sentence (8) is clearly an ECM (not an object control) construction. That is, *ton*

Jani is assigned a theta-role only as a subject of *cries* and not as the object of the causative verb. This means that the DP receives two Case values in the course of the derivation.

We have also direct (visible) evidence for multiple Case valuation. Consider the following data from Korean and Cuzco Quechua.

(9) a. Cheli-**hanthey-ka** ton-i isse.
Cheli-DAT-NOM money-NOM have
'Cheli has money.'

b. Swunhi-ka Yenghi-**hanthey-lul** chayk-ul cwuesse.
Swunhi-NOM Yenghi-DAT-ACC book-ACC gave
'Swunhi gave Yenghi the book.' (Levin 2017: 448)

(10) a. Mariyacha muna-n [Xwancha-q platanu ranti-na-n-ta].
Maria want-3S Juan-GEN banana buy-NOML-3P-ACC
'Maria wants Juan to buy bananas.'

b. Mariyacha Xwancha-**q-ta** muna-n [__ platanu ranti-na-n-ta].
Maria Juan-GEN-ACC want-3S banana buy-NOML-3P-ACC
'Maria wants Juan to buy bananas.' (Baker 2015: 282; boldface mine)

In (9a), nominative Case can appear in addition to dative Case on the relevant nominal. Likewise, in (9b), accusative Case can appear in addition to dative Case on the relevant nominal. In (10a) the DP *Xwancha* 'Juan' gets genitive Case as the subject of the nominalized clause. But in (10b) the DP moves up into the higher clause and it gets accusative Case. This accusative Case shows up as a second Case suffix on the relevant nominal. Thus, we have plenty of empirical evidence for multiple Case valuation.

To sum up, I have argued for a system of multiple Case valuation via Agree. That is, the computational system of human language (CHL) should allow for the possibility that a nominal receives more than one Case. In sections 3 and 4, I will argue that TCs in English and Icelandic are best analyzed as involving multiple Case valuation.

3. English TCs as Multiple Case Valuation

3.1. *Tough*-Movement and Object Deletion

The history of TCs in generative grammar starts with the assumption that there is a syntactic and semantic relation between (11a) and (11b).

(11) a. John is easy to please.
b. It is easy to please John.

In order to explain the relation between (11a) and (11b), Postal (1971), building on Rosenbaum (1967), proposes to deal with sentences like (12a-c) by postulating a special rule called *tough*-movement.

(12) a. For me to please John is easy.
b. It is easy for me to please John.
c. John is easy for me to please.

According to Postal (1971), (12b) is derived from (12a) by "extraposition" of the infinitival clause, resulting in the insertion of the expletive *it* into the matrix subject position. Then, *tough*-movement applies to (12b), replacing the expletive *it* with *John*. The evidence for such a simple A-movement approach is given by Postal and Ross (1971).

(13) Getting herself arrested on purpose is hard for me to imagine Betsy being willing to consider. (Postal and Ross 1971: 545)

According to Postal and Ross (1971), in (13), the loss of the subject of *getting herself arrested on purpose* is easily explained by the application of Equi NP Deletion before *tough*-movement. However, Akmajian (1972) argues that (13) cannot be used to motivate the *tough*-movement approach and claims instead that (13) could be derived from a source like the following.

(14) Betsy's getting herself arrested on purpose is hard for me to imagine Betsy being willing to consider Betsy's getting herself arrested on purpose...
(slightly modified from Akmajian 1972: 375)

Akmajian (1972) argues that in (14) Equi NP Deletion operates with a new kind of conditions on possible structural relations between the "higher" occurrence of *Betsy* and the "lower" occurrence of *Betsy*. That is, the "lower" occurrence of *Betsy* serves to delete the "higher" occurrence of *Betsy*. Thus, Akmajian (1972) concludes that there is no need to posit a rule like *tough*-movement.

Building on the insights of Akmajian (1972), Lasnik and Fiengo (1974) propose an analysis of TCs in which no syntactic movement is involved. Lasnik and Fiengo (1974) argue that the apparently missing object of the embedded clause in TCs is simply the result of phonological deletion under identity with the matrix subject, as illustrated below.

(15) John is easy to please ~~John.~~

According to Lasnik and Fiengo (1974), the motivation for Object Deletion comes from the following examples.

(16) a. This room is a pigsty to behold.
b. Nureyev is a marvel to watch.
c. This problem is a hornets' nest to deal with.
(17) a. *It is a pigsty to behold this room.
b. *It is a marvel to watch Nureyev.
c. *It is a hornets' nest to deal with this problem.
(Lasnik and Fiengo 1974: 536)

Lasnik and Fiengo (1974) argue that under the *tough*-movement approach, the sentences (16a-c) would be derived from the ungrammatical sentences (17a-c). Thus, Lasnik and Fiengo (1974) conclude that the derivation of TCs involves Object Deletion rather than *tough*-movement. That is, under their analysis, the

matrix subject is base-generated *in situ* and the object of the embedded verb undergoes Object Deletion under identity with the matrix subject.

3.2. A-A′-A Movement

Chomsky (1977) argues that TCs exhibit properties consistent both with *tough*-movement and Object Deletion and captures these apparently "in-between" properties by proposing a *wh*-movement analysis, which has since been the basis for standard analyses for TCs (cf. Chomsky 1981). The empirical evidence for *wh*-movement in TCs comes from the type of island effects typically associated with *wh*-movement. Consider the following sentence.

(18) a. ??What sonatas is this violin easy to play on?
b. ??[$_{CP}$ what sonatas$_i$ is [$_{TP}$ this violin$_j$ [$_{AP}$ easy [$_{CP}$ Op$_j$ [$_{TP}$ PRO to play t$_i$ on t$_j$]]]]] (Hicks 2003: 42; see originally Chomsky 1977)

Sentence (18a) is unacceptable because it constitutes an extraction from an island configuration, as illustrated in (18b). *What sonatas* cannot target the embedded SpecCP because it is filled by the null *wh*-operator. If *what sonatas* cannot reach this position, it is transferred to the interfaces by PIC and is thus unable to vacate the embedded clause, hence the unacceptability.

Furthermore, TCs are also known to exhibit other properties characteristic of *wh*-movement configurations. Consider the following examples.

(19) a. A guy like John$_i$ is hard to imagine any woman believing she could ever resist falling in love with e_i.
b. (?) CDs$_i$ are easy [Op$_i$ to copy t$_i$ [without having to pay for good money for e_i]]. (Hicks 2003: 43)

Sentence (19a) shows that TCs permit long-distance dependencies across multiple clauses. And sentence (19b) indicates that TCs license parasitic gaps. Both are generally considered to be typical of A′-movement. Hence, it can be concluded that the derivation of TCs involves A′-movement.

However, extant accounts based on A′-movement can now be divided into two types. One approach claims that the null *wh*-operator undergoes (successive-cyclic) A′-movement to the edge of the embedded clause and is linked to the base-generated subject by means of predication (cf. Chomsky 1977, 1981, Keine and Poole 2016). The other approach argues that the embedded object DP undergoes (successive-cyclic) A′-movement to the edge of the embedded clause, followed by A-movement into the matrix subject position (cf. Brody 1993, Hornstein 2001, Hicks 2003, 2009, Hartman 2011, Obata and Epstein 2011, Brillman 2015, Nagamori 2015, Longenbauch 2017). For reasons of space, I cannot review these analyses. But it seems that the empirical evidence supports the latter approach. For example, Hicks (2009) claims that the biding behavior of the TC subject indicates that at some stage of the derivation, it must occupy a position within the embedded infinitival clause. Consider the following example.

(20) Pictures of himself$_i$ are hard for every photographer$_i$ to ignore.
(Hicks 2009: 552)

Assuming that an anaphor must be c-commanded by its antecedent at some stage of the derivation, Hicks (2009) argues that the subject *pictures of himself* must be c-commanded by its antecedent *every photographer* before movement into the matrix subject position. That is, the subject *pictures of himself* must have moved from a position at least as low as the embedded SpecCP in order for it to be bound by its antecedent *every photographer* (see also Pesetsky 1987).[6] This fact is compatible with an analysis whereby the TC subject moves from the object position in the embedded clause into the matrix subject position.

However, when we pursue the A- A′-A movement approach, a serious theoretical problem arises. That is, it faces the problem of "Case conflict." When the object DP is merged with the embedded verb, it is assigned accusative Case via Agree with *v*. But when it is moved up into the matrix subject position, it is (re)assigned nominative Case via Agree with T. It is widely assumed that a nominal cannot receive more than one Case. However, I will argue that such a

derivation is in fact possible and that the DP in TCs receives two Case values in the course of the derivation.

3.3. Derivation: $Case_{Nom}$+$Case_{Acc}$

Under the proposed theory of multiple Case valuation via Agree, I propose that the (simplified) derivation of TCs will be the following. Specifically, I claim that the derivation of TCs involves multiple Case valuation.

(21) a. This book is easy to read.

b. {this book, {T, {easy, {~~this book~~, {C, {to, {~~this book~~, {PRO, {*v*, {read, {~~this book~~}}}}}}}}}}

The DP *this book* is first merged with the embedded verb and valued as accusative via Agree with *v*. Recall that under the proposed theory, Agree does not make the relevant DP inactive. The inactivation of it is does by Transfer at each phase in a cyclic manner. The DP, then, undergoes (free) IM into the edge of *v* before/at Transfer. And it further undergoes movement into the edge of C. This makes it possible for the DP to be *revalued* as nominative via Agree with T. In this way, the DP receives two Case values in the course of the derivation (i.e., accusative and nominative). I assume that in English the *last* Case value received in the course of the derivation (i.e., nominative Case) will be realized morphologically (see section 5.1). In the next section, I will turn to Icelandic TCs and argue that in Icelandic TCs the first Case value received in the course of the derivation will be realized (i.e., retained) morphologically.

4. Icelandic TCs as Multiple Case Valuation

4.1. A′ and A Properties

I will outline some empirical properties of Icelandic TCs and demonstrate that they exhibit both A′ and A properties. Examples of Icelandic TCs are given in (22).

(22) a. Það var erfitt að PRO dæma **þennan leik**.
EXPL was difficult.DFLT to referee.INF this.ACC game.ACC
'It was difficult to referee this game.'

b. *Það var erfitt að PRO dæma **þessi leikur**.
EXPL was difficult.DFLT to referee.INF this.NOM game.NOM
'It was difficult to referee this game.'

c. **Þennan leik** var erfitt að PRO dæma __.
this.ACC game.ACC was difficult.DFLT to referee.INF
'This game was difficult to referee.'

d. Var **þennan leik** erfitt að PRO dæma __?
was this.ACC game.ACC difficult.DFLT to referee.INF
'Was this game difficult to referee?' (Sigurðsson 2016: 180)

In (22d), the DP *þennan leik* moves from the object position of the embedded verb into SpecTP of the matrix clause. Importantly, in (22d), structural accusative Case is "preserved." According to Sigurðsson (2016), the key difference between (22c) and (22d) is that in the former the DP *þennan leik* is located in SpecCP while in the latter it is located in SpecTP.[7] In Icelandic TCs, the adjective (i.e., the *tough* predicate) shows up in the neuter singular (i.e., default) and T also gets default values (i.e., 3.SG). In this paper, I will focus on cases like (22d) where the DP is clearly located in SpecTP.

Sigurðsson (2016) demonstrates that Icelandic TCs exhibit some A′-properties. First, assuming that if biding of the DP external to the infinitival clause is possible, then it behaves like it is within the clause, he observes that biding of the moved DP (by PRO) is not perfect but it is not ungrammatical.

(23) Context: It is easy to trust one's friends but...
?...ég tel **óvini sínum** vera erfitt að PRO treysta __.
I believe enemy.DAT self.DAT be.INF difficult.DFLT to trust.INF
'...I believe it is difficult to trust one's enemy.' (Sigurðsson 2016: 183)

The reconstruction effect observed in (23) points to A′-movement.

Second, Sigurðsson (2016) observes that in Icelandic TCs the complement of a preposition in the embedded infinitival clause can be moved into the subject position (i.e., SpecTP).

(24) Ég tel **Vigdísi** vera mikilvægt að tala vel um __?
I believe Vigdís.ACC be.INF important.DFLT to talk.INF well of
'I believe it is important to talk well about Vigdís.' (Sigurðsson 2016: 184)

As has been known since Maling and Zaenen (1985), prepositions in Icelandic can be stranded by A′-movement, but not by A-movement. This implies that Icelandic does not have a pseudo-passive, as shown in (25).

(25) *Ég tel **Vigdísi** vera oftast talað vel um __.
I believe Vigdís.ACC be.INF most.often talked well of
(*ibid*.; cited from Maling and Zaenen 1985: 156)

Given this, the grammaticality of (24) suggests that the derivation of Icelandic TCs involves A′-movement.

Third, Sigurðsson (2016) argues for the A′-property of Icelandic TCs in terms of locality. If the accusative DP were moved directly into SpecTP via A-movement, then other arguments higher up in the structure would be expected to be interveners for movement under the usual assumption. However, we have already seen that the accusative DP can in fact move past the subject of the embedded clause (i.e., PRO) in Icelandic TCs. From this, he concludes that the relevant movement operation involved in the derivation of Icelandic TCs is A′-movement. It has been well known that if a DP A′-moves, it does so successive-cyclically. Sigurðsson (2016) observes that this is also the case in Icelandic TCs, as illustrated in (26a-b).

(26) a. Af hverju er **þessa kenningu**$_i$ ekki hægt [$_{CP}$ t_i að PRO reyna
why is this.ACC theory.ACC not possible.DFLT to try.INF
[$_{CP}$ t_i að PRO afsanna t_i]]?
to disprove.INF
'Why is it not possible to try to disprove this theory?'

b. Af hverju er **þessa kenningu**$_i$ ekki hægt [$_{CP}$ t_i að PRO sannfæra
why is this.ACC theory.ACC not possible.DFLT to convince.INF
neinn um [$_{CP}$ t_i að PRO prófa t_i]]?
anyone.ACC about to test.INF
'Why is it not possible to convince anybody to test this theory?'

(Sigurðsson 2016: 186)

In (26a), for example, the complement clause of *hægt* 'possible' is an infinitival clause whose main verb is *reyna* 'try'. The verb *reyna* 'try' in turn takes an infinitival clause whose main verb is *afsanna* 'disprove'. The DP *þessa kenningu* 'this theory' moves successive-cyclically through phase boundaries (i.e., *v*Ps and CPs). The same goes for (26b). Thus, it can be concluded that Icelandic TCs exhibit some A′-properties.

However, other tests indicate that Icelandic TCs also exhibit A-properties (i.e., movement to SpecTP). First, Sigurðsson (2016) argues that yes/no-questions are a good test because the finite verb moves to C and the DP below the finite verb moves to SpecTP. Consider the following example.

(27) Context: A says to B: "You said that it was important to avoid that woman over there, but..." (pointing to another woman)
... er **þessa konu** ekki mikilvægara að forðast?
is this.ACC woman.ACC not more.important to avoid.INF
'... isn't this woman more important to avoid?' (Sigurðsson 2016: 182)

In (27), the DP *þessa konu* 'this woman' presumably moves to SpecTP since *er* 'is' is in C.

Second, Sigurðsson (2016) observes that the moved DP in Icelandic TCs is

felicitous in an ECM environment (i.e., subject-to-object raising).

(28) Ég hef alltaf talið **þennan mann** vera mikilvægt að forðast.
I have always believed this.ACC man.ACC be.INF important.DFLT to avoid.INF
'I have always believed this man to be important to avoid.'
(Sigurðsson 2016: 182)

In (28), *þennan mann* 'this man' is moved from the embedded object position into SpecTP of the embedded clause. Then, it is moved into the object position of the ECM verb *telja* 'believe'. This suggests that the DP in Icelandic TCs also undergoes A-movement (i.e., movement into SpecTP).

Third, citing Wood (2015), Sigurðsson (2016) points out that when an expletive is used, which is a place-holder in the left-periphery, the fronted accusative DP is subject to the definiteness effect, which would only be expected if the fronted accusative were a derived subject in the matrix clause (cf. Wood 2015a). Consider the following examples.

(29) a. *það er **þennan misskilning** mikilvægt að forðast.
EXPL is this.ACC misunderstanding.ACC important.DFLT to avoid.INF
b. það er **suma men** mikilvægara að forðast en aðra.
EXPL is some.ACC men.ACC more.important to avoid than others.ACC
'Some people are more important to avoid than others.'
(Sigurðsson 2016: 182-183)

In (29a), the DP is definite and the definiteness effect obtains, hence the unacceptability. On the other hand, in (29b), the DP is indefinite and no such effect obtains. On the assumption that in Icelandic expletive constructions, the lower, postverbal position is subject to the classical definiteness effect, Sigurðsson (2016) concludes that the accusative DP in Icelandic TCs is in fact moved to SpecTP.[8]

Given these data, it can be concluded that Icelandic TCs exhibit both A′ and A properties. More specifically, as Sigurðsson (2016) suggests, the deriva-

tion of Icelandic TCs involves movement from an A′-position into an A-position (i.e., improper movement). In the next subsection, I will propose just such an analysis and argue that the derivation of Icelandic TCs involves multiple Case valuation under the proposed theory.

4.2. Derivation: Case_{Nom}+Case_{Acc}

Under the proposed theory of multiple Case valuation via Agree, I propose that the derivation of Icelandic TCs proceeds as follows.

(30) a. Var **þennan leik** erfitt að PRO dæma __?
was this.ACC game.ACC difficult.DFLT to referee.INF
'Was this game difficult to referee?' (Sigurðsson 2016: 180)

b. {C, {þennan leik, {T, {erfitt, {~~þennan leik~~, {C, {að, {~~þennan leik~~, {PRO, {*v*, {dæma, {~~þennan leik~~}}}}}}}}}}}

The DP is first merged with the embedded verb and assigned accusative Case via Agree with *v*. Recall that under the proposed theory, Agree does not make the Case feature of the DP inactive. The Case-valued DP, then, undergoes (free) IM into the edge of *v* before/at Transfer and it further undergoes (free) IM into the edge of C (i.e., A′-movement). Since the DP is still active, T agrees with it and the Case feature of the DP is *revalued* as nominative.[9] Basically following Bejar and Massam (1990), Svenonius (2005), and Narita (2007), I assume that in Icelandic, when a nominal receives two Case values in the course of the derivation, the *first* Case value received will be realized (i.e., retained) morphologically (see section 5.1).

4.3. Interim Summary

Let me quickly sum up the discussion so far. I have argued that English and Icelandic TCs can be best analyzed as involving multiple Case valuation. More specifically, the DP receives two Case values in the course of the derivation (i.e., accusative and nominative). In the next section, I will deal with some architectural issues arising from the proposed system of multiple Case valuation

via Agree.

5. Some Architectural Issues

5.1. On Multiple Case Values

I have argued that under the proposed system, a nominal can receive more than one Case. I have also demonstrated that the stacked Case values will be realized differently from language to language. In English the last Case value received will be realized morphologically, while in Icelandic the first Case value received will be realized (i.e., retained) morphologically. On the other hand, in Korean and Cuzco Quechua, all the Case values received will be realized morphologically. That is, the following three possibilities are all attested in the world's languages.

(31) a. **Case2**+~~Case1~~
This is a situation where the **last** Case value received will be realized.
b. ~~Case2~~+**Case1**
This is a situation where the **first** Case value received will be realized.
c. **Case2**+**Case1**
This is a situation where **all** the Case values received will be realized.

A natural question that immediately arises here is what determines the realization of the stacked Case values. I believe that the key to answering this question lies in the nature of Case morphology and agreement of the language in question. Consider, again, the following Quzco Quechua sentences.

(32) a. Mariyacha muna-n [Xwancha-q platanu ranti-na-n-ta].
Maria want-3S Juan-GEN banana buy-NOML-3P-ACC
'Maria wants Juan to buy bananas.'
b. Mariyacha Xwancha-**q-ta** muna-n [__ platanu ranti-na-n-ta].
Maria Juan-GEN-ACC want-3S banana buy-NOML-3P-ACC
'Maria wants Juan to buy bananas.' (Baker 2015: 282; boldface mine)

As is obvious, in Quzco Quechua, the Case morphology on nominals is agglutinative rather than fusional. That is, the inflection is clearly separate from the nominal stem. I suppose that in this type of languages it is in principle possible to realize all the stacked Case values at the same time, provided that there is no restriction at all. The same holds true for Korean as well.

On the other hand, in English and Icelandic, the Case morphology on nominals is fusional rather than agglutinative. That is, the inflection is not separate from the nominal stem (i.e., *he/him*, *she/her*, etc.). I argue that the fusional Case morphology in English and Icelandic blocks the realization of all the stacked Case values at the same time. That is, in this type of languages, it is in principle impossible to realize all the stacked Case values at the same time. Therefore, in English and Icelandic, when a nominal receives two Case values, either of them must be chosen and realized. Then, what determines the realization of the stacked Case values in these two languages? What is the crucial difference between these two languages? I speculate that the difference is attributable to the nature of agreement. Icelandic makes default agreement available for T (i.e., 3. sg). Then, it is highly likely that if a language makes default agreement available for T, the language makes use of this as a means of resolving the problem of how to realize the stacked Case values. More specifically, if we assume that T's morphological ϕ-agreement and nominative Case valuation go hand in hand (cf. Bejar and Massam 1990, Narita 2007), we can say that the cancellation of nominative Case valuation effectively nullifies T's morphological ϕ-agreement. Therefore, in Icelandic TCs, T gets default values and the first Case value received (i.e., accusative Case) is realized (i.e., retained) morphologically, while in English this option is not available. However, it goes without saying that further research needs to be done in order to evaluate the plausibility of this hypothesis. I leave this for future research.

5.2. What Happens at the Interfaces?

I have suggested that even after a nominal has received a Case value, nothing would prevent it from undergoing (free) IM into the edge of a phase before/at Transfer. Thus, under the proposed system, the object in a regular transitive

sentence would also be expected to undergo (free) IM into the edge of a phase before/at Transfer, as illustrated in (33b).

(33) a. John read this book.
b. [$_{CP}$ C [$_{TP}$ T [$_{vP}$ this book [$_{vP}$ John read ~~this book~~]]]]

In (33b), the object *this book* is merged with the verb *read* and valued as accusative via Agree with *v*, and then it undergoes (free) IM into the edge of a phase before/at Transfer. However, recall that the outcome will be evaluated at the interfaces. In (33b), if T agrees with the DP *this book*, the Case feature of *John* remains unvalued (i.e., Case-less), hence crashes at the interfaces. Put differently, if the derivation of (33b) is sent to the interfaces as is, it violates Full Interpretation.

The only way to "rescue" the derivation (33b) is to move (i.e., free IM) the DP *this book* into the edge of C before T-agreement takes place, as illustrated below.

(34) [$_{CP}$ this book C [$_{TP}$ T [$_{vP}$ ~~this book~~ [$_{vP}$ John read ~~this book~~]]]]

On the assumption that minimality is calculated at the phase level (cf. Chomsky 2007, 2008, Chomsky et al. 2017), at the stage of the derivation (34), the occurrence of *this book* at the edge of *v* is a lower copy in a movement chain, thus plausibly invisible to the operation Agree. If this is correct, T can now successfully agree with the DP *John*, valuing the Case feature of it as nominative. The result will be the following topicalization structure.

(35) a. This book, John read.
b. [$_{CP}$ this book C [$_{TP}$ John T [$_{vP}$ ~~this book~~ [$_{vP}$ ~~John~~ read ~~this book~~]]]]

The DP *this book* at the edge of C will be interpreted as a topicalized element. Thus, the grammaticality of (35a) lends support to the thesis that Merge, external or internal, applies freely with only certain choices converging at the

interfaces (cf. Chomsky 2015).

5.3. A Note on "Proper" Improper Movement

It is widely known that movement from an A′-position into an A-position is banned as an improper movement configuration. It is also standard to assume that all phrasal movement can be strictly classified as A′-movement or A-movement. However, recent work casts some doubt on this traditional dichotomy (cf. van Urk 2015, Sigurðsson 2016, Longenbauch 2017). For example, van Urk (2015) argues that Dinka has a movement operation that shows both A and A′ properties. In order to account for this, van Urk (2015), assuming that all movement is feature driven, proposes that the differences between A-movement and A′-movement are attributed to the types of features involved in the triggering Agree relations and that the possibility for movement showing mixed A/A′-behavior arises when ϕ and A′ (i.e., *wh*, topic, or focus) features present on the same head trigger movement together. van Urk (2015) refers to this as a *composite probe* (cf. Coon and Bale 2014). Thus, in this theory, the types of movement operations in a given language are reduced to the distribution of ϕ and A′ features in that language. Adopting this theory, Sigurðsson (2016) proposes that T (over-) inherits ϕ and A′ features from C and acts as a composite probe. This implies that the DP in TCs moves through an A′-position into SpecTP which is now a mixed A/A′-position. As Sigurðsson (2016) suggests, the general ban on improper movement is thus circumvented since the movement to SpecTP (from an A′-position) becomes (partly) A′-movement. Given this state of affairs, it is possible to argue for a theory of grammar that *sometimes* allows improper movement.[10] As Brillman (2015) points out, the problem now is to determine *when* improper movement can(not) be licensed (and why).

6. Conclusion

In this paper, I have established the system of multiple Case valuation via Agree and argued that TCs in English and Icelandic can be best analyzed under the proposed theory. More specifically, the derivation of TCs in English and

Icelandic involves multiple Case valuation (i.e., accusative and nominative). In English TCs, the last Case value received will be realized morphologically (i.e., nominative). On the other hand, in Icelandic TCs, the first Case value received will be realized (i.e., retained) morphologically (i.e., accusative). The difference between the two languages is attributable to the nature of agreement.

There are still of course many issues to be settled or even mentioned in this paper, but I hope that the present work will shed new light on issues around Case and TCs.

Notes

1. Note that this is usually assumed in the derivation of *wh*-questions like the following.
   (i) What did John buy?
   (ii) [$_{CP}$ C [$_{TP}$ T [$_{v}$P what [$_{v}$P John buy ~~what~~]]]]
   (iii) [$_{CP}$ what C-did [$_{TP}$ John T [$_{v}$P ~~what~~ [$_{v}$P ~~John~~ buy ~~what~~]]]]
   In (ii) *what* is merged with the verb *buy* and assigned accusative Case via Agree with *v*. However, after it has received accusative Case, it must undergo IM into the edge of *v* before/at Transfer. Otherwise, the *wh*-question like (i) would not be generated.
2. In this paper, I will only deal with *structural* Case stacking. That is, my claim in this paper is that structural Case may be assigned to a nominal more than once. The distinction between structural Case and inherent Case is introduced by Chomsky (1981). According to Chomsky (1981), structural Case is assigned in a particular structural position, while inherent Case is closely associated with certain theta-roles. I would like to thank an anonymous reviewer for clarifying this point.
3. An anonymous reviewer points out that it is necessary to guarantee that two XPs in (5) are copies of the same element because the higher copy and the lower copy have different Case values. I will leave this interesting issue for future research.
4. An anonymous reviewer points out that Hungarian is a pro-drop language and has an adjunct island and that sentence (6) may be analyzed in terms of copy-raising. If so, sentence (6) may not constitute genuine evidence for multiple Case valuation.
5. This example is taken from Bajar and Massam (1990) with some minor modifica-

tions. I would like to thank an anonymous reviewer for his or her suggestion.

6. Strictly speaking, *every photographer* does not c-command the embedded object because it is the complement of the preposition *for*. However, it is well known that in this kind of example the DP argument introduced by the preposition acts as if the PP level were not present for the purposes of c-command.
7. According to Sigurðsson (2016), not all speakers of Icelandic find (22d) grammatical.
8. Recall that *er* 'is' is in C.
9. An anonymous reviewer points out that nominative Case valuation in Icelandic is optional and that the Icelandic data examined in this paper do not constitute evidence for multiple Case valuation. But here, I would like to follow Preminger (2011) in assuming that agreement is not actually optional. Rather, it is obligatory (i.e., agree must be attempted, but it need not be successful). In fact, Ussery (2015) observes that in the following Icelandic sentence with a post-verbal subject, agreement is obligatory.

   (i) Það opnuðu/*opnaði öll kaffihús í Kringlunni klukkan tíu.
   there opened (3.PL./*DFLT.) all coffehouses (N.P.) in Kringlan clock ten
   'All coffeehouses in Kringlan opened at 10.' (Ussery 2015: 30)

   If nominative Case valuation in Icelandic is really optional, then the verb in (i) would get default values, contrary to fact (cf. Preminger 2011). This seems to suggest that (downward) T-agreement is obligatory. If this reasoning is on the right track, then in (30b) T obligatorily "probes" and finds the *active* DP *þennan leik* "this game" at SpecCP, assigning nominative Case to it. But it realizes (i.e., retains) the first Case value (i.e., accusative). Turning now to (22a), repeated here as (ii), we can say that T-agreement must be attempted, but there is nothing to agree with because *þennan leik* 'this game' has already undergone Transfer and the expletive *Það* 'it/there' in Icelandic needs no Case (Sigurðsson 1996). Hence, T gets default values.

   (ii) Það var erfitt að PRO dæma **þennan leik**.
   EXPL was difficult.DFLT to referee.INF this.ACC game.ACC
   'It was difficult to referee this game.' (Sigurðsson 2016: 180)

   The point is that agreement is obligatory (i.e., agree must be attempted, but it need not be successful; Preminger 2011). This proposal makes sense because in order to *know* that there is nothing to agree with in (ii), T must "probe" its domain. That is, an attempt (i.e., agree) must be made. Under the proposed system, this implies that if T-agreement is attempted and an active DP is found, T assigns nominative Case to it. I would thus say that the apparent "optionality" of nomi-

native Case valuation in Icelandic can receive an explanation under the proposed system.

10. An anonymous reviewer raises the question of how to deal with the following improper movement configuration under the proposed system.
    (i) *Who seems that John met?
    I have no clear explanation as to the ungrammaticality of (i), but I would say that some UG principle (e.g., Anti-Locality) can offer an explanation to it. Many details, however, remain to be worked out. I will leave this for future research.

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